



Wind Research at WVU Could Have Worldwide Impact

Story by Courtney Dunn

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It could also help reduce America's dependence on foreign oil

MORGANTOWN -- Throughout much of the country and even here in West Virginia, many are turning to wind power to generate electricity.

In Morgantown, researchers at WVU's College of Engineering and Mineral Resources are busy developing a new type of wind turbine.

"This university is actually known for it's capabilities in aerodynamics," said WVU Department of Mechanical and Aerospace Engineering Professor and Primary Investigator James E. Smith.

"So I think we're going to get a name for ourselves here," he added.

Inside WVU's wind tunnel lab, students and professors are developing a new type of wind turbine.

"Instead of having the blades rotate the way they do on the ones you see, they're actually upright and going around in a circle," Smith explained.

Along with being more energy and cost efficient, Smith says he and his team also believe it will be safer for migrating birds.

"The major problem is the air that's behind these wind turbines has a big pressure difference and that pressure differential can collapse the lungs of these birds and that's what's killing them," he explained. "We're hoping this will eliminate that problem or at least reduce it significantly."

To make America less dependent on foreign oil, the U.S. Department of Energy wants 20 percent of the nation's electricity to come from wind energy.

Researchers say their work in the WVU lab helps that goal.

"Having that ability will not only decrease the price of gasoline but it will also decrease the price of energy in general," said Gerald Angle, a post-doctoral research fellow working on the project.

That is why many student researchers are ecstatic to be a part of what could be ground-breaking research.

"The project has the potential to affect people worldwide and to be this young and still in school and have an impact on that is pretty exciting at this point," said first-year PhD student Chad Panther.

The team is currently working on building a technology demonstrator at the Morgantown Airport.

They hope it will be ready to go up this summer.

Shenfei Group, a large manufacturing company in China, awarded the \$1.6 million contract.

GT Technologies is also a partner with the project.